

AMENDMENTS TO THE DRAWINGS

Replacement Sheet 3 is attached which includes a clean version of amended Figure 4. The attached sheet replaces original sheet 3 including Figure 4. The amendment to the drawing involves extending the lead line for reference numeral 50 from the outer circumference of the second cladding to the outer circumference of the inner cladding 34, to conform the drawing to the description in paragraph 45 of the application as filed.

A marked-up copy of the amended drawing figure is not being included in this electronically filed Response. However, a marked-up copy of the amended drawing figure, including annotations indicating the changes made, will be provided if required by the Examiner.

REMARKS

Independent claims 1, 3, 5, 9 and 11 are amended. Claims 7-8 are withdrawn by the Examiner. New claim 12, dependent from claim 1, is added to recite a feature previously recited within original claim 1. Now pending in that case are claims 1-6 and 9-12, of which claims 1, 3, 5, 9 and 11 are independent.

Election/ Restriction

The Examiner has withdrawn from consideration claims 7 and 8. Applicants respectfully disagree with the Examiners reasoning regarding this withdrawal and in particular the characterization of species on page 2 of the Office Action. However, this issue is not addressed in detail at this time, as the Examiner has made the requirement final. Applicants, however, reserve all rights, including the right to raise any issues in the future in this or another venue.

Claim Rejections under 35 USC §112

The Examiner rejects claims 1-6 and 9-11 as indefinite. In general, the Examiner appears to consider that certain recitations in the claim are not clear and urges that process steps be positively recited. Though Applicants respectfully disagree that the claims are indefinite, amendment is made to address the Examiner's concerns so as to advance prosecution. The amendments are considered non-narrowing and simply made to make the claims more readable. In certain instances recitations that the Examiner noted are redacted; in other instances the claim terms are rearranged to change the wording of particular phrases considered by the Examiner to express intended results rather than positive recitations. For example amendment is made to change the wording of claims that included "for forming", "to form", and "for being disposed" noted on pages 5 and 9 of the outstanding Office Action. Regarding claim 1, antecedent basis for "the cladding" is found in the preamble, which is also amended to insert "fiber" before "article". Similar amendment is made to other preambles.

The claims are directed to methods of making a cladding of an optical fiber article, and it is respectfully submitted that the meaning of the term "cladding" is clear and readily understood by one of ordinary skill in the art. As one of ordinary skill also readily understands, although an optical fiber article includes a core, the core and cladding can be made separately and by different persons in different places. For example, in the rod and tube method, the core rod can be made separately from the cladding tube. Eventually the core rod is inserted in the tube and

assembly drawn to an optical fiber. In other instances the core and cladding may be formed substantially at the same time and by the same process. However, to avoid unduly limiting the claims, recitation of the core is now redacted. The claims are directed to methods of making the cladding, including those wherein the cladding is made at a different time and/or place than the core.

Claim Rejections under 35 USC § 102

US Patent 5,925,163 to Evans

Claims 1-6 and 9-11 are rejected as anticipated by Evans. In particular, the Examiner cites to Figure 10 and column 6, lines 14-20 of Evans.

Regarding claim 1, which is directed to a method of making a cladding, Figure 10 of Evans shows layers 68, 69, 70 and 71, which can be deposited by OVD, of the *core* of the preform 72. Accordingly, such layers cannot correspond to the layers of the cladding recited in claim 1.

See, for example, column 7, lines 60-65 of Evans:

Cladding material is then applied to the core preform. This can be done by inserting the core preform into chucks so that it can be rotated and translated with respect to burner 65 to deposit a cladding of undoped silica particles, for example.

In addition, the Examiner cites to U.S. Patent 5,254,508 to Kirkbir at column 1, lines 12-24, for the proposition that OVD deposition can be considered to include sintering to form a porous layer, and that such pores can be considered the “voids” recited in claim 1. However, assuming only *arguendo* that such characterization is correct, creating a porous layer of soot is merely an intermediate step in an OVD process. It is well established, as is known to one of ordinary skill in the art, that the OVD process includes further sintering or consolidating the porous soot to form a solid, pore free glass. See Evans at lines 65-67:

The resultant fiber preform is then consolidated to form a draw blank from which optical fiber is drawn.

See also Kirkbir at column 1 lines 23-25:

At the conclusion of deposition, the mandrel is removed and the tube is sintered, or densified, at 1500° to 1600° C. to a dense glass rod, or preform.

Accordingly Evans, taken alone or in combination with Kirkbir, fails to teach or suggest the invention as recited in claim 1, which is now amended to recite “refraining from sintering that would cause said voids to fail to remain in said first sintered layer”. Regarding the amendment to claim 1, no new matter is added. Support is found throughout the specification and claims, and in particular at paragraph 63 in the application as filed. Similar considerations apply to independent claim 3, which is also amended as indicated above with respect to claim 1. Claims 2 and 12, which depend from claim 1, and claim 4, which depends from claim 3, are patentable at least for the foregoing reason.

Regarding independent claims 5, 9 and 11 and claims dependent therefrom, although the Office Action at page 3 indicates that the foregoing claims are rejected as anticipated by Evans, the Examiner does not seem to apply Evans to these claims, applying instead other art to these claims, as is discussed below. Accordingly, Applicants respond to the rejections based on this other art and cannot, absent specific grounds rejection, discuss Evans here as regards independent claims 5, 9 and 11 and claims dependent therefrom. However, it is noted that Evans fails to teach the limitation regarding “exposing a layer of soot ...” of claims 5 and 9 or the limitation regarding “discrete regions” of claim 11, in addition to other limitations recited in the claims.

U.S. Patent 5,149,349 to Berkey

Claims 3-4 are rejected as anticipated by Berkey. Berkey also teaches conventional processing wherein soot is consolidated to remove any pores. See, for example, column 5, line 7 of Berkey “Porous glass coating 48 has become completely consolidated and fused to tube 47...” Accordingly, it is respectfully submitted that Berkey fails to teach or suggest the invention as recited in claim 3 as amended. Similar reasoning applies to claim 4, which depends from claim 3.

Claim 11 is also rejected as anticipated by Berkey. In addition to other limitations not found in Berkey, claim 11 recites discrete regions. The Examiner contends that pores of the OVD soot of Berkey can correspond to discrete regions. As noted above, Berkey teaches eliminating any pores or voids via conventional consolidation. Accordingly, Berkey fails to teach or suggest a limitation recited in claim 11.

U.S. Patent 6,192,713 to Zhang

Claim 5 is amended to recite that the exposing step of the different layer occurs subsequent to the sintering step of the first layer. Accordingly, because the first layer is sintered, it will not tend not to absorb any gas or liquid to which it may be exposed. The term “only” is redacted. The amendment is not considered related to patentability. Argument below regarding the cited art is not made contingent on the amendment. No new matter is added. Support is found through the specification and claims. See, for example, paragraph 55 of the application as filed.

Claims 5-6 are rejected as anticipated by Zhang. The Examiner cites to Example II of Zhang, starting at column 22. Zhang fails to anticipate claim 5 at least because Zhang fails to teach or suggest exposing a soot layer that will become part of the cladding. Zhang, in example I, teaches that any layer that forms the cladding is already sintered prior to formation of the core layers. See, for example, Example 1 in Column 21 of Zhang, and in particular Table 1 and lines 55-58. At column 23 of Zhang, the differences between Example I and Example II are noted. See Table II and column 23, lines 20-30 of Zhang. The only difference noted in Zhang between Example I and Example II is that the *core* layers of soot are exposed. Exposure to core layers of soot to a solution is entirely conventional, and Zhang fails to teach or suggest exposing layers of soot that will be sintered to form part of the cladding. For example, any layers that are form the cladding are already sintered, as in Example I of Zhang. Accordingly, it is respectfully submitted that Zhang fails to teach or suggest the invention as recited in claim 5 and claim 6 dependent therefrom.

Claims 9-10 are rejected as obvious over Zhang in view of U.S. Patent 4,820,322 to Baumgart. Baumgart is cited for the proposition that overlcladding can increase the productivity of the MCVD process. Claim 9 recites “exposing the layer of soot to a selected material in one of a gas and liquid form for absorption by the soot” and “forming a portion of the cladding by sintering the soot.” As noted above, Zhang does not teach or suggest exposing a layer of soot

and forming a portion of the cladding by sintering the soot. Zhang is understood to teach the entirely conventional technique of sintering soot to form a core. Baumgart is not understood to remedy this defect. Accordingly it is respectfully submitted that Zhang, taken alone or in combination with Baumgart, fails to anticipate or render obvious the invention as claimed in claim 9 and claim 10 dependent therefrom.

Accordingly, reconsideration and withdrawal of the rejections of claims 1-6 and 9-11 is respectfully requested.

Amendments to the Specification

Amendments are made to the specification to correct minor typographical and grammatical errors, as is evident by inspection of the proposed amendments. Entry of the amendments is respectfully requested.

Request for Three Month Extension of Time

Applicants hereby request an extension of time of three months for response to the outstanding Office Action mailed May 5, 2006, thereby extending the time for response to November 6, 2006 (November 5, 2006 falling on a Sunday).

Electronic Payment of Fees

Fees associated with this filing (Three Month Extension of Time fee of \$510 for a Small Entity), are being paid electronically. No other fees are considered to be due. However, if it is determined that an additional fee is due, or that an overpayment has been made, please debit or credit, as appropriate, Deposit Order Account 50-2343.

CONCLUSION

This Response and Amendment is considered to address all matters raised by the Examiner in the outstanding Office Action. It is respectfully submitted that the case is now in condition for allowance. Passage to issue is respectfully requested. Please do not hesitate to contact the undersigned if any issues are deemed to remain unresolved.

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Respectfully submitted,

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